

$$\begin{aligned} \text{Carga Viva} &= 80 \text{ lb/pie}^2 \\ \text{Carga Muerta} &= 110 \text{ lb/pie}^2 + \\ w &= 190 \text{ lb/pie}^2 \\ &= 722 \text{ lb/ft}^2 \times 0.3048 \text{ m}^2/\text{ft}^2 \\ &= 220.021909 \end{aligned}$$

$$m = \frac{S}{L} = \frac{6}{7} = 0.8571428571$$

$$\begin{aligned} \bullet \text{ Largo} = W_2 &= \frac{W_s}{3} \left(\frac{3-m^2}{2} \right) = \frac{190 \cdot 1.507(6)}{3} \left(\frac{3-0.8571428571^2}{2} \right) \\ W_2 &= 407.1428572 \text{ lb/ft} \end{aligned}$$

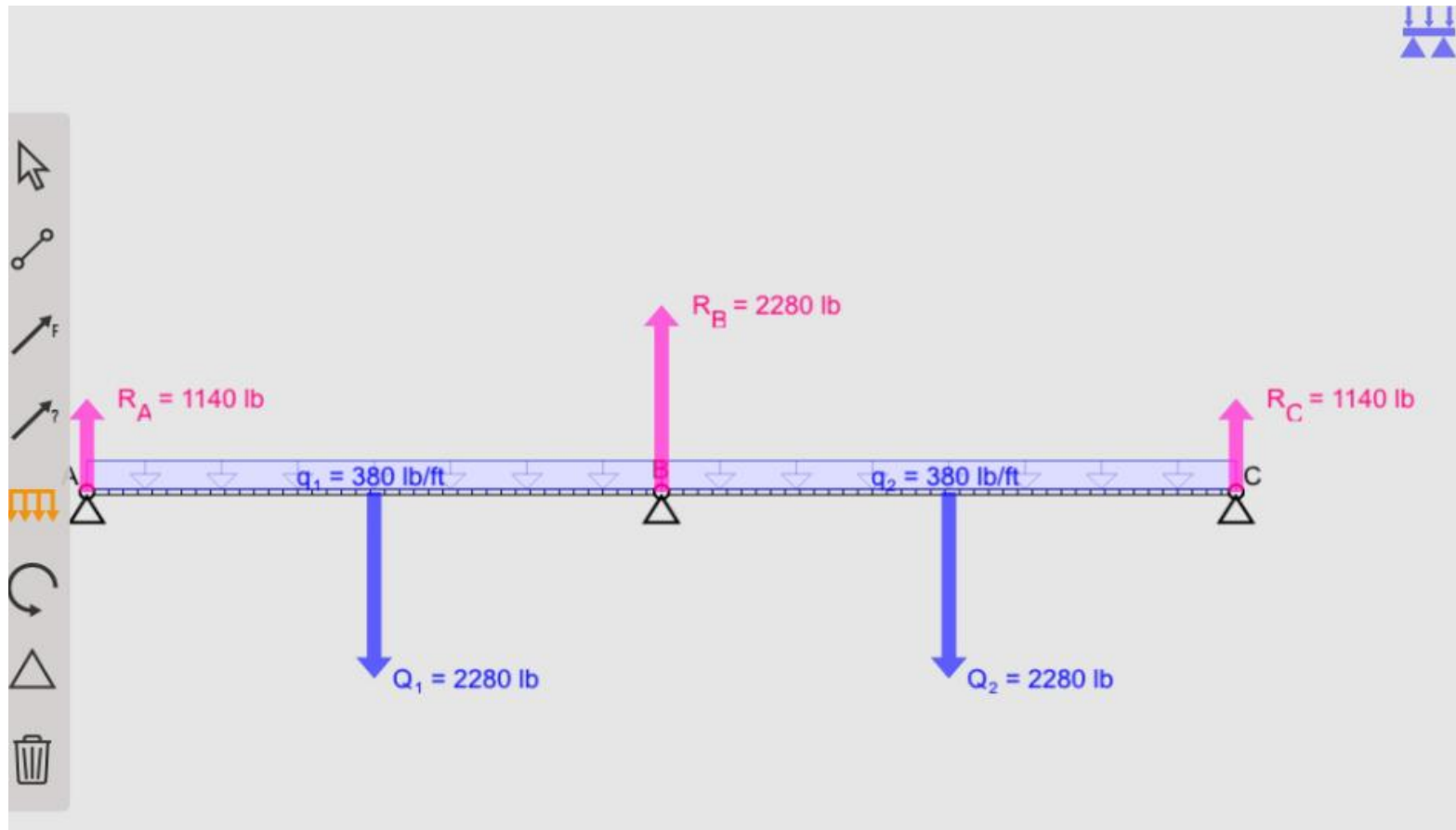
$$\begin{aligned} \bullet \text{ Corto} = W_1 &= \frac{W_s}{3} = \frac{190 \cdot 1.507(6)}{3} \\ W_1 &= 380.16 \text{ lb/ft} \end{aligned}$$

$$3) \Delta_T = 42 \text{ ft}^2$$

$$P_E = 42(190)(11) = 87780$$

$$P_D = 42(75) = 3150$$

$$P_{\text{TOTAL}} = 90930 \text{ lb}$$



Inputs:

Elements

Element	Length	Weight
A-B	6.000 ft	
B-C	6.000 ft	

Distributed Loads

Distributed Load	Direction	Size
Q_1	\downarrow	2280.000 lb (380.000 lb/ft)
Q_2	\downarrow	2280.000 lb (380.000 lb/ft)

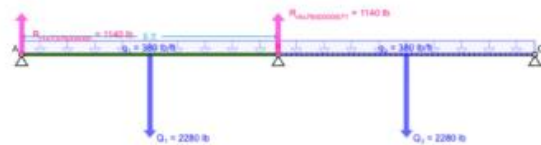
Results:

Overconstrained System: No equations available.

Reaction Forces

Force	Direction	Size	Angle
R_A	\uparrow	1140.000 lb	90.0°
R_B	\uparrow	2280.000 lb	90.0°
R_C	\uparrow	1140.000 lb	90.0°

Element A-B

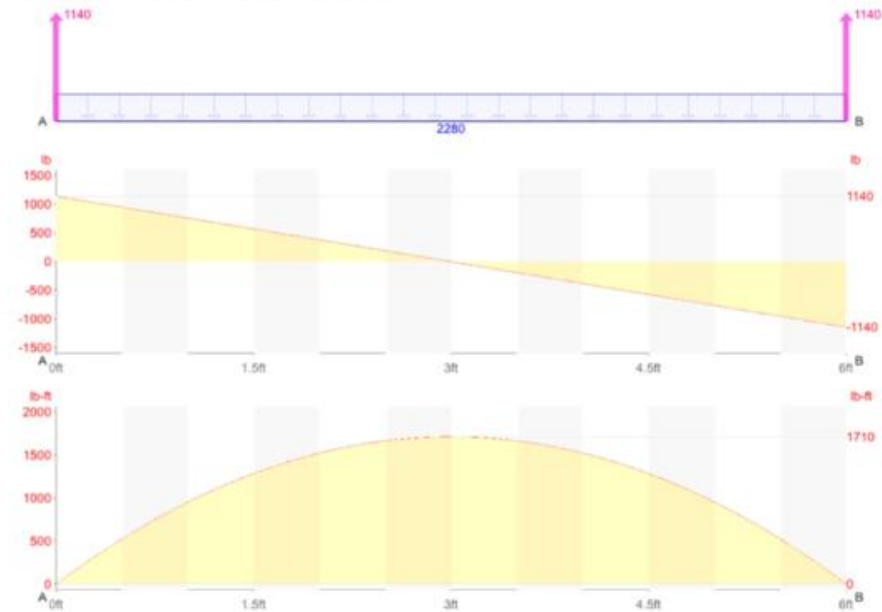


Results

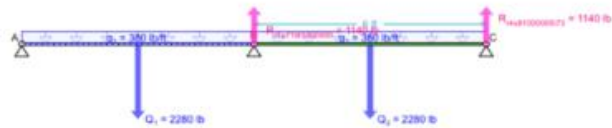
(No equations available)

$M_{r3s70i790000000} = 0.000 \text{ lb-ft}$	$R_{r1s70i790000000} = 0.000 \text{ lb}$	$R_{r2s71i810000000} = 1140.000 \text{ lb}$
$M_{r3s71i810000000} = 0.000 \text{ lb-ft}$	$R_{r1s71i810000000} = 0.000 \text{ lb}$	$R_{r4s790000005i71} = 0.000 \text{ lb}$
$M_{r6s790000005i71} = 0.000 \text{ lb-ft}$	$R_{r2s70i790000000} = 1140.000 \text{ lb}$	$R_{r5s790000005i71} = 1140.000 \text{ lb}$

Shear Force and Moment Diagram



Element B-C



Results

(No equations available)

$M_{r3s71i81000000} = 0.000 \text{ lb-ft}$	$R_{r1s71i81000000} = 0.000 \text{ lb}$	$R_{r4s81000005i73} = 0.000 \text{ lb}$
$M_{r6s79000005i71} = 0.000 \text{ lb-ft}$	$R_{r2s71i81000000} = 1140.000 \text{ lb}$	$R_{r5s79000005i71} = 1140.000 \text{ lb}$
$M_{r6s81000005i73} = 0.000 \text{ lb-ft}$	$R_{r4s79000005i71} = 0.000 \text{ lb}$	$R_{r5s81000005i73} = 1140.000 \text{ lb}$

Shear Force and Moment Diagram

